

In stark contrast, Jozefowicz, in col. 9, lines 34-45, discloses producing a well defined optically variable colored pattern on a non-colored background by electrolytically depositing nickel into a porous oxide from a standard nickel ANALOK solution (25 g/l nickel sulphate heptahydrate, 20 g/l magnesium sulphate heptahydrate, 25 g/l boric acid, 15 g/l ammonium sulphate). Applicants respectfully assert that 25 g/l of nickel sulphate heptahydrate ( $\text{NiSO}_4 \cdot 7\text{H}_2\text{O}$ ) has a molecular weight of 280.7 g/mol, and thus, has a molar concentration of 0.089 mol/l, which is clearly different from 0.3 mol/l to 0.7 mol/l. Moreover, Jozefowicz nowhere discloses that a conductivity of the plating bath is 80 mS/cm or over. Accordingly, Jozefowicz fails to disclose a plating bath wherein the concentration of the nickel source is 0.3 mol/l to 0.7 mol/l on a nickel atom basis, and wherein the conductivity of the plating bath is 80 mS/cm or over, as recited in independent claims 1, 9, 11, and 16.

In stark contrast, Du Rose, in col. 3, discloses a solution (h) including 300 g/l of nickel chloride and 30 g/l of nickel sulfate. The molecular weight of nickel chloride is 129.60 g/mol, and the molecular weight of nickel sulfate is 154.75 g/mol. Thus, the molar concentration of nickel is 2.5 mol/l, which is clearly different from 0.3 mol/l to 0.7 mol/l. Moreover, Du Rose nowhere discloses that a conductivity of the plating bath is 80 mS/cm or over. Accordingly, Du Rose fails to disclose a plating bath wherein the concentration of the nickel source is 0.3 mol/l to 0.7 mol/l on a nickel atom basis, and wherein the conductivity of the plating bath is 80 mS/cm or over, as recited in independent claims 1, 9, 11, and 16.

Hamamura merely discloses a technique of applying electroless plating to a rare-earth magnet. Hamamura, however, nowhere discloses a plating bath wherein the concentration of the nickel source is 0.3 mol/l to 0.7 mol/l on a nickel atom basis, and wherein the conductivity of the plating bath is 80 mS/cm or over, as recited in independent claims 1, 9, 11, and 16.

Lowenheim merely discloses a Watts bath including nickel sulfate to provide nickel ions and nickel chloride to provide chloride ions, wherein the chloride ions increase the conductivity of the bath and improve throwing power. However, Lowenheim suffers from the same deficiency as Comparative Example 1, as described in Table 1 of the present specification. Hypothetically, even if a large amount of nickel chloride is used to increase the conductivity in Lowenheim, the concentration of nickel will also increase and well exceed the nickel concentration range of 0.3 mol/l to 0.7 mol/l. Thus, Lowenheim also fails to disclose a plating bath wherein the concentration of the nickel source is 0.3 mol/l to 0.7 mol/l on a nickel atom basis, and wherein the conductivity of the plating bath is 80 mS/cm or over, as recited in independent claims 1, 9, 11, and 16, and therefore, fails to make up for the deficiencies of Jozefowicz, Du Rose, and Hamamura.

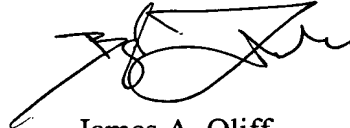
Accordingly, Applicants respectfully assert that Jozefowicz, Du Rose, Hamamura, and Lowenheim, individually or in combination, fail to disclose or suggest a plating bath including at least a nickel source, wherein the concentration of the nickel source is 0.3 mol/l to 0.7 mol/l on a nickel atom basis, and wherein the conductivity of the plating bath is 80 mS/cm or over, as recited in independent claims 1, 9, 11, and 16.

In accordance with the above remarks, Applicants respectfully submit that independent claims 1, 9, 11, and 16 define patentable subject matter. Claims 2-8, 10, and 12-15 depend from claims 1, 9, and 11, respectively, and therefore, also define patentable subject matter, as well as for the additional features they recite. Thus, Applicants respectfully request that the Examiner withdraw the rejections.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Bogdan A. Zinchenko  
Registration No. 57,473

JAO:BAZ/hs

Date: September 21, 2006

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--